

REMARKS

Claims 1-13 are pending in the application.

In this response claims 1-6 are canceled as drawn to a non-elected invention, and Applicants reserve the right to file divisional applications at a later date directed to the subject matter of these claims.

Claims 9 and 13 are canceled.

Claims 7-8 and 10-12 are amended to specify that the lubricant in the load/unload ramp composition is selected from a perfluoropolyether and derivatives thereof in an amount sufficient to provide a surface lubricating layer with a predetermined thickness of about 200 to about 500 Å. Support for these amendments may be found, for example, at page 8, lines 7-12; as well as page 9, lines 11-20 of the application.

New claims 14-15 are added. Claim 14 is directed to a load/unload ramp composition including a surfactant, and is supported, for example, on page 9, lines 21-25 of the application. Claim 15 is supported, for example, on page 8, lines 7-12 of the application.

New claims 16-17 are added, and are directed to molded parts having a surface layer of a lubricant selected from perfluoropolyether and derivatives thereof. These claims are supported, for example, on page 10, lines 31-33 of the present application.

I. The Rejection Under 35 U.S.C. § 102(e)

In paragraph 4 of the Office Action dated January 2, 2004, claims 7-8 and 13 are rejected under 35 U.S.C. § 102(e) as anticipated by Koyanagi et al., U.S. Patent No. 6,078,474. This rejection is respectfully traversed for the reasons that follow.

In response to this rejection, independent claim 7 is amended to specify that the load/unload ramp composition includes a lubricant selected from perfluoropolyether and derivatives thereof. This lubricant is present in the composition in sufficient amount to provide a layer of lubricant on the surface of the molded load/unload ramp with a thickness of about 200 to about 500 Å.

The cited reference teaches the use of a polytetrafluoroethylene (PTFE) lubricant in a molding composition used to make a load/unload ramp for a disc drive. However, Koyanagi

fails to teach the use of a perfluoropolyether or a derivative thereof as a lubricating material for use in making a load/unload ramp. Therefore, Applicants respectfully submit that the cited reference fails to anticipate the subject matter of the amended claims under 35 U.S.C. § 102(e), and reconsideration and withdrawal of the cited rejection are requested.

II. The Rejection Under 35 U.S.C. § 103(a)

In paragraph 6 of the Office Action, claims 9-12 are rejected as obvious under 35 U.S.C. § 103(a) over the Koyanagi reference, U.S. Patent No. 6,078,474. This rejection is respectfully traversed for the reasons that follow.

The Koyanagi reference teaches in col. 10, lines 66-67 that the fluorine contained in PTFE provides a favorable “sliding characteristic” for the molded ramp. However, Koyanagi also teaches that PTFE causes molding problems, making formation of a smooth part difficult and degrading the surface of the mold itself (col. 11, lines 1-8). To avoid these problems, the Koyanagi reference teaches that the components of the load/unload ramp composition should be selected such that no PTFE is detectable on the surface of the part (col. 11, lines 9-22).

In contrast, the present load/unload ramp composition includes components selected to provide a layer of a perfluoropolyether lubricant with a thickness of about 200 to about 500 Å on the surface of the molded part. The cited reference fails to teach or suggest this molding composition and this molding method, and in fact teaches away from the formation of a surface lubricating layer.

To reach a lubricated region of the molded part, Koyanagi teaches that the surface of the part must be worn away (col. 11, lines 19-22), and this process would be expected to produce debris that could potentially interfere with the operation of the disc drive. Such a wearing-in process is not required with the parts made by the presently claimed method. In addition, the molded part formed from the present method includes a surface layer including lubricant, and it would be expected to provide a molded part with a lower surface friction than the part formed by the method taught in Koyanagi.

Koyanagi teaches that a surface lubricant layer is to be avoided, and a skilled artisan reviewing these teachings would not be motivated to modify the Koyanagi method to provide the

presently claimed lubricating material, molding method or surface lubricant layer. The presently claimed part would be expected to provide a lower friction surface than the part in the cited reference, and would not require a wearing-in period as required by Koyanagi. For these reasons, Applicants respectfully submit that the presently claimed method and part are not obvious under 35 U.S.C. § 103(a) in view of the teachings the Koyanagi reference. Reconsideration and withdrawal of the cited rejection is respectfully requested.


III. Conclusion

In view of the above remarks, reconsideration and withdrawal of the cited rejections are requested, and allowance of the claims at an early date is solicited. If questions remain regarding the above, please contact the undersigned.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: August 2, 2004



H. Sanders Gwin, Jr.
Reg. No. 33,242

Fish & Richardson P.C., P.A.
60 South Sixth Street
Suite 3300
Minneapolis, MN 55402
Telephone: (612) 335-5070
Facsimile: (612) 288-9696